

**Anwenderhinweise
Technische Information**

DE

**User Manual
Technical Information**

EN

**Mode d'emploi
Informations techniques**

FR

**Manual del usuario
Información técnica**

ES

**Istruzioni per l'uso
Informazioni tecniche**

IT

**Zubehör / Accessories
Accessoires / Accesorios / Accessori**



Product Specification

Product	automatic long-term grease and oil dispenser			
Power generation	hydrogen gas producing drycells			
Working pressure	max. 5 bar			
Adjustment	stepless 1–12 months (for standard conditions)			
Dispensing rate	see table on page 11			
Operating temperature	–20°C to +55°C (–4°F to +131°F) ambient temperature (Note: grease consistency changes with temperature)			
Operation/Usage	Grease dispenser can be installed in any position, even under water. Attention: do not expose to direct heat.			
Certifications/ Approvals	   II 1G Ex ia IIC T6 II 1D Ex iaD 20T 80°C I M1 Ex ia I			
Ingress protection	IP68 (dustproof and waterproof)			
Usage period	activation within 2 years of production date			
Stock temperature	recommended at 20°C ± 5°C (65°F ± 5°F)			
	30 ml	60 ml	125 ml	250 ml
Weight full	~ 82 g	~ 115g	~ 190 g	~ 335 g
Weight empty	~ 55 g	~ 60 g	~ 75 g	~ 111 g

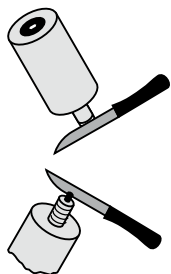
simalube 30

simalube 60

simalube 125

simalube 250

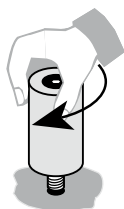

Assembly and Installation



- 1) Open the lubricator outlet by cutting off seal or removing plug.



- Do not remove plug from oil filled units!** Cut off the protruding nipple with a knife; a small black point becomes visible (opening now guaranteed).
- 2) To start the simalube lubricator, set the gas generator to the required dispensing time (stepless in months, 1–12) using a 3 mm Allen key. The lubricator is activated once the dispensing time has been set. Take the required dispensing quantity from the tables on page 11.



- 3) Note the starting date on the label using a waterproof pen.
- 4) Clear grease lines and fill them with the appropriate grease. Screw simalube onto the greasing point. If necessary, use accessories shown on page 33–39. Apply safety rules.
- 5) Once the set dispensing time has expired, replace empty lubricator with the same type or refill. Before restarting, clear grease lines and fill them with the appropriate grease.
- 6) The gas generator is sufficient to empty the unit **once, irrespective of the dispensing time set.**

Security note: If the lubricator is started without opening the outlet or in case of blocked grease lines within the installation, the pressure in the lubricator can build up approx. 5 bar. At an overpressure of approx. 6 bar the lubricator breaks at the defined breaking point between housing and bottom. The pressure behind the piston releases and oil or grease can come out at the breaking point.

The correct functioning of the lubricator can only be assured if recommended lubricants (see table on page 14) and original simalube accessories are used, and if the installation, operating and maintenance instructions are closely followed. The manufacturer cannot accept any responsibility for damages as a result of ignoring the instructions mentioned above. **Important:** Before putting simalube into operation fill extensions and the lubrication lines with the appropriate simalube greases (cartouches SL01 ...SL26) using a grease gun. Use only original accessories.

Temperature / Output rate

The output rate can be adjusted as required, depending on the ambient temperature (see table).

Example: You want to set the dispensing time for a 125 ml simalube for 180 days.

Ambient temperature: 20°C	Ambient temperature: 55°C
Setting: 6	Setting: 7



simalube 30

Dispensing time (days)	30	90	180	270	360
ml/day	1.00	0.33	0.17	0.11	0.08
Temperature	Setting	Setting	Setting	Setting	Setting
-20°C	+	2	3.5	5.5	7.5
4°C	+	2.5	5	7.5	10.5
20°C	1	3	6	9	12
40°C	1	3	6.5	9.5	–
55°C	1	3.5	7	10.5	–

- + use larger dispenser with longer dispensing time
- smallest possible output rate reached

simalube 60

Dispensing time (days)	30	90	180	270	360
ml/day	2.00	0.67	0.33	0.22	0.17
Temperature	Setting	Setting	Setting	Setting	Setting
-20°C	+	2	4	6.5	8
4°C	+	2.5	5.5	9	10.5
20°C	1	3	6	9	12
40°C	1	3	6.5	9.5	–
55°C	1	3.5	7	10.5	–

- + use larger dispenser with longer dispensing time
- use smaller dispenser with shorter dispensing time

simalube 125

Dispensing time (days)	30	90	180	270	360
ml/day	4.17	1.39	0.69	0.46	0.35
Temperature	Setting	Setting	Setting	Setting	Setting
-20°C	+	2	4	6.5	8.5
4°C	+	2.5	5.5	8	10.5
20°C	1	3	6	9	12
40°C	1	3	6.5	9.5	–
55°C	1	3.5	7	10	–

- + use larger dispenser with longer dispensing time
- use smaller dispenser with shorter dispensing time

simalube 250

Dispensing time (days)	30	90	180	270	360
ml/day	8.33	2.78	1.39	0.93	0.69
Temperature	Setting	Setting	Setting	Setting	Setting
-20°C	++	2	4.5	7.5	9.5
4°C	++	2.5	5.5	8	10.5
20°C	1	3	6	9	12
40°C	1	3	6	9	–
55°C	1	3.5	6.5	9.5	–

- ++ use 2-fold adapter
- use smaller dispenser with shorter dispensing time

The values relate to laboratory conditions, SL01 with no counterpressure. At low temperatures in particular, the values may vary between one grease type and another. The dispensers must be replaced once the dispensing time set has expired, even if they are not completely empty.

The grease quantity dispensed per day is influenced by:

- counter pressure/resistance from the grease lines
- ambient temperature
- viscosity of the grease

Start-up time:

The lubricator requires a certain start-up time until the lubricant is first dispensed. The start-up time varies in line with the volume dispensed, dispenser size and operating temperature selected. At 20°C ambient temperature and a dispensing time setting of 12 months, the dispenser outputs the lubricant within one week. The start-up time doubles at low temperatures (–20°C) or with small dispensers (30 ml).

You can reduce the start-up time in such a case by setting a dispensing time on the lubricator of one month for one to two days and then changing to the desired dispensing time.

Calculation Pro:

An online calculation program is available at www.simatec.com (simalube/calculation pro). This tool calculates the right setting for the simalube lubricator if you enter the precise operating parameters.

Notes:

In order for the unit to function reliably, it is important to have clear, filled grease lines. It must be ensured that the grease lines are not blocked. Consequently, the grease lines should always be cleared with a grease gun before starting.

The simalube can be re-adjusted or switched off during operation.

The values on the gas generator relate to laboratory conditions (see page 10). Depending on the temperature and setting, it may take several hours (or several days in the case of long-term settings) until the lubricant is first dispensed.

The user must check the operation of the simalube regularly.

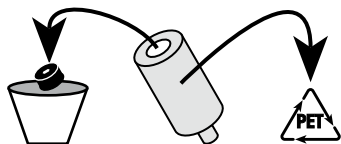
Grease lines should be no longer than 0.5 m. Recommended bore diameter: 6–8 mm. Resistance in grease lines has to be minimized, narrow passages and right angles should be avoided.

Use a mounting support in the event of strong vibrations or high accelerations (for accessories, see pages 33–39).

The simalube may only be used to supply **a single** grease point. No branches may be made.

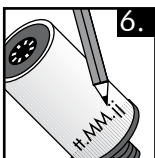
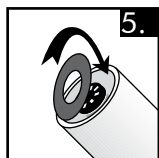
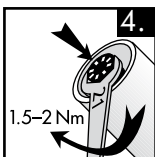
Once the lubricator is installed and activated, it must not be removed and mounted onto another lubrication point.

Recycling Instructions



- 1) Unscrew gas generator and dispose of complete unit for battery recycling (see above). **Note:** Do not detach lubricator near an open flame.
- 2) Dispose of empty housing for plastic recycling. If the lubricator still contains lubricant after use, please dispose of it in accordance with local regulations.

Filling and Refilling (for small quantities)



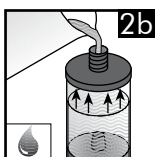
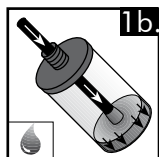
Filling with grease

1a. Push piston all the way forward by blowing gently with compressed air or with the aid of a plastic rod (7 mm diameter), towards the bottom or opening.

2a. Screw on refill nipple (article no. 3012) and connect grease gun, or screw connector nipple (3013 or 3014) onto grease gun. Keep the dispenser pressed to the adapter during the filling process so that you do not have to screw on the refill nipple again. Press grease into the dispenser. Avoid air bubbles when filling the unit. Continue the filling process until the piston has been pushed all the way back. Do not overfill! **Caution: Lever presses can create pressure of up to 80 bar, which is enough to destroy the dispenser.**

3a. Use closing nipple (green) if the dispenser is to be stored.

4. Position gas generator (make sure the O-ring is positioned correctly) and attach firmly with a 1.5–2.0 Nm torque key.
5. Clip in cover disk.
6. Note grease type and filling date on the label.



Filling with oil

1b. Push the piston all the way back (towards the gas generator).

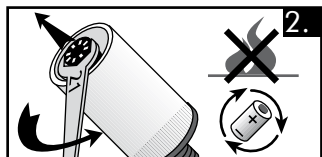
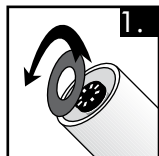
2b. Pour in oil through the opening at the bottom.

3b. Position non-return valve (yellow, article no. 5060).

4–6 Continue as above.

Refilling with grease or oil

1. Remove cover disk.
2. Unscrew gas generator (SW 21) and recycle with other batteries. Never remove near an open flame! Then continue as above for filling with grease or oil.



Note

To ensure that the simalube lubricator operates reliably, only greases that have been tested and approved for use with the simalube should be used. In particular, it is important to ensure the good stability of the grease against bleeding of the base oil and a low consistency class (max. NLGI 2). No guarantee claims will be accepted when dispensers are filled by the user or not explicitly approved lubricants are used. If in doubt, please contact our Technical Department or your local distributor.

Lubricants

The standard lubricant range suitable for simalube includes modern high quality lubricants tested and modified for the special requirements of grease and oil dispensers. Datasheets are available online for all lubricants (www.simatec.com). Please refer to these datasheets for the instructions/safety regulations of the grease/oil manufacturers.

No.	Application	Temperature range (in the area of lubrication)
SL01	Multipurpose grease	-30/+120°C
SL02	Multipurpose grease with MoS ₂	-25/+130°C
SL04	High temperature grease	-20/+160°C
SL06	Fluid grease (EP)	-20/+120°C
SL09	Biodegradable grease	-20/+80/100°C
SL10	Food industry grease (NSF H1)	-30/+140°C
SL14	Chain oil	-10/+90°C
SL15	High temperature chain oil	-30/+250°C
SL16	Machine oil	-20/+100°C
SL18	Food industry oil (NSF H1)	-15/+150°C
SL19	Biodegradable chain oil	-15/+100°C
SL24	Grease for a wide temperature range (EP)	-30/+150°C
SL25	High temperature grease	-20/+180°C
SL26	High performance grease (EP)	-20/+150°C

simalube can also be delivered filled with other lubricants or as an empty unit. Ask for advice. The operation of simalube with oils of different viscosities is also possible.

simalube has been safety inspected and approved by the following institutions:

- TÜV Product Service GmbH, Germany, Nr. Z1 11 11 29499 018
- TÜV Product Service GmbH, Germany, Nr. EX2 13 02 29499 019
- DEKRA Certification B.V., Netherland Nr. KEMA 09ATEX0098
II 1 G Ex ia IIC T6
-  II 1 D Ex iaD 20 T 80°C
I M1 Ex ia I

EU Declaration of Conformity

The following standards have been applied:

simatec ag

Stadthof 2 in CH-3380 Wangen a. Aare
declares that the

single point lubricators

simalube & simalube multipoint

are designed and manufactured in
accordance with

**Directive 94/9/EC of the European
Parliament and the Council for equipment
and protective systems intended for use in
potentially explosive atmospheres.**

EN 60079-0:2012

EN 60079-11:2012

EN 60079-26:2012

EN 50303:2000

Notified Body:

TÜV Product Service GmbH

D-80339 Munich

DEKRA Certification B.V., NL-6812 AR Arnhem

Certificate No.

KEMA 09ATEX0098

Wangen a. Aare, 01.10.13

Mischa Wyssmann, Managing Director CEO

Manufactured by:

simatec ag

Stadthof 2, CH-3380 Wangen a. Aare
www.simalube.com

simalube®
smart lubrication

Zubehör / Accessories / Accessoires Accesorios / Accessori

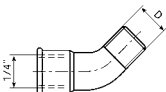
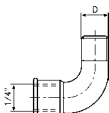
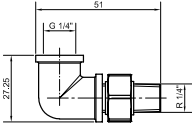
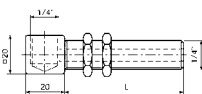
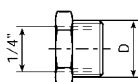
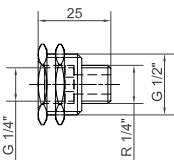
Achtung! Nur Originalzubehör verwenden. Bei technisch anspruchsvollen oder aussergewöhnlichen Anwendung kontaktieren Sie bitte unsere technische Abteilung oder Ihren Händler.

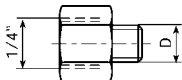
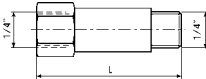
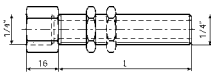
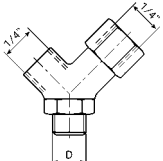
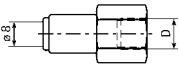
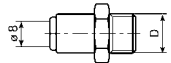
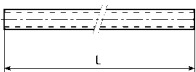
Note: Use only original accessories. If you have technically demanding or unusual applications, please contact our Technical Department or your local distributor.

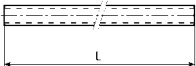
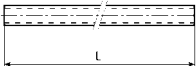
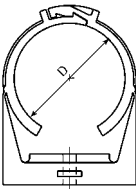
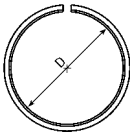
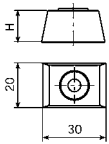
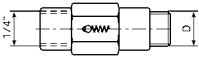
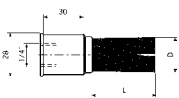
Attention: n'utiliser que les accessoires originaux. Pour des installations techniquement complexes ou inhabituelles, veuillez consulter notre service technique ou votre distributeur.

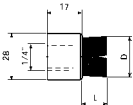
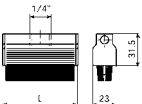
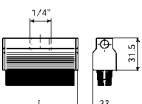
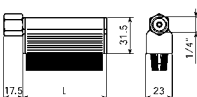
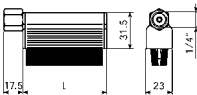
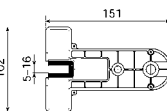
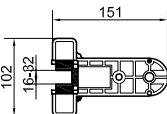
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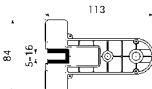
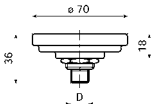
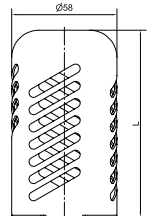
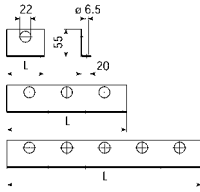
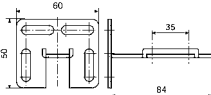
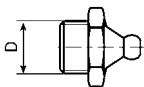
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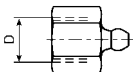
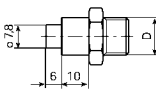
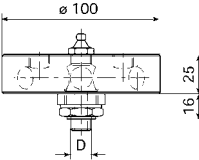
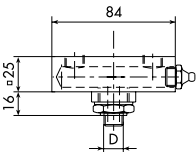
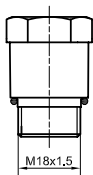
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	Bogen 90° schwenkbar / Bent connection 90° swiveling / Coude 90° pivotant / Codo 90° orientable / Gomito 90° orientabile <table><tr><td>Nr.</td><td>290.1004</td></tr></table>	Nr.	290.1004				
Nr.	290.1004						
	90° Anschluss mit Gewinde inkl. 2 Muttern (nur für Öl) 90° connection with thread incl. 2 nuts (only for oil) Pièce de raccordement avec filetage 90° incl. 2 écrous (pour huile) Conector 90° con rosca incl. 2 tuercas (solo para aceite) Raccordo 90° filettato incl. 2 dadi (solo per l'olio) <table><tr><td>L</td><td>70</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.1005</td><td></td></tr></table>	L	70	[mm]	Nr.	290.1005	
L	70	[mm]					
Nr.	290.1005						
	Anschlussnippel / Connecting nipple / Raccord / Niple de conexión / Nippolo di raccordo <table><tr><td>D</td><td>G 3/8</td><td>G 1/2</td></tr><tr><td>Nr.</td><td>290.1010</td><td>290.1011</td></tr></table>	D	G 3/8	G 1/2	Nr.	290.1010	290.1011
D	G 3/8	G 1/2					
Nr.	290.1010	290.1011					
	Befestigungsnippel G 1/2"-R 1/4" Fixation nipple G 1/2"-R 1/4" Raccord de fixation G 1/2"-R 1/4" Niple de montaje G 1/2"-R 1/4" Nippolo di montaggio G 1/2"-R 1/4" <table><tr><td>Nr.</td><td>290.1015</td><td>[mm]</td></tr></table>	Nr.	290.1015	[mm]			
Nr.	290.1015	[mm]					

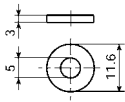
	Reduziernippel / Reducing nipple / Raccord de reduction / Niple de reducción Nipplo di riduzione <table><tr><td>D</td><td>G 1/8</td><td>G 1/4</td><td>M6</td><td>M8</td><td>M8x1</td></tr><tr><td>Nr.</td><td>290.1020</td><td>290.1021</td><td>290.1022</td><td>290.1023</td><td>290.1024</td></tr><tr><td>D</td><td>M10</td><td>M10x1</td><td>M12</td><td>M12x1.5</td><td>UNF 1/4</td></tr><tr><td>Nr.</td><td>290.1025</td><td>290.1026</td><td>290.1027</td><td>290.1028</td><td>290.1121</td></tr></table>	D	G 1/8	G 1/4	M6	M8	M8x1	Nr.	290.1020	290.1021	290.1022	290.1023	290.1024	D	M10	M10x1	M12	M12x1.5	UNF 1/4	Nr.	290.1025	290.1026	290.1027	290.1028	290.1121
D	G 1/8	G 1/4	M6	M8	M8x1																				
Nr.	290.1020	290.1021	290.1022	290.1023	290.1024																				
D	M10	M10x1	M12	M12x1.5	UNF 1/4																				
Nr.	290.1025	290.1026	290.1027	290.1028	290.1121																				
	Verlängerung / Extension / Rallonge / Protongador / Prolunga <table><tr><td>L</td><td>10</td><td>35</td><td>50</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.1021</td><td>290.1040</td><td>290.1041</td><td></td></tr></table>	L	10	35	50	[mm]	Nr.	290.1021	290.1040	290.1041															
L	10	35	50	[mm]																					
Nr.	290.1021	290.1040	290.1041																						
	Schottverschraubung 25 mm, 1 Mutter/60 mm, 2 Muttern Screwed connection with hole 25 mm, 1 nut/60 mm, 2 nuts Raccord de traversée 25 mm, 1 écrou/60 mm, 2 écrous Tornillo de conexión 25 mm, 1 tuerca/60 mm, 2 tuercas Raccordo filettato c. foro 25 mm, 1 dado/60 mm, 2 dadi <table><tr><td>L</td><td>25</td><td>60</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.1045</td><td>290.1046</td><td></td></tr></table>	L	25	60	[mm]	Nr.	290.1045	290.1046																	
L	25	60	[mm]																						
Nr.	290.1045	290.1046																							
	Y-Anschlussstück Enthält Reduziernippel 1021 Y-manifold Contains reduction 1021 Raccord Y Contient raccord de réduction 1021 Conexión en Y Contiene reducción 1021 Raccordo a Y Contiene nipplo di riduzione 1021 <table><tr><td>D</td><td>R 1/4</td></tr><tr><td>Nr.</td><td>290.1050</td></tr></table>	D	R 1/4	Nr.	290.1050																				
D	R 1/4																								
Nr.	290.1050																								
	Steckverschraubung Für Schlauch ø 8 mm Quick connection For hose ø 8 mm Raccord fileté Pour tuyau ø 8 mm Conector rápido Para manguera de ø 8 mm Raccordo ad innesto Per tubo ø 8 mm <table><tr><td>D</td><td>G 1/4</td></tr><tr><td>Nr.</td><td>290.1060</td></tr></table>	D	G 1/4	Nr.	290.1060																				
D	G 1/4																								
Nr.	290.1060																								
	Steckverschraubung Für Schlauch ø 8 mm Quick connection For hose ø 8 mm Raccord fileté Pour tuyau ø 8 mm Conector rápido Para manguera de ø 8 mm Raccordo ad innesto Per tubo ø 8 mm <table><tr><td>D</td><td>G 1/8</td><td>G 1/4</td><td>G 3/8</td></tr><tr><td>Nr.</td><td>290.1070</td><td>290.1071</td><td>290.1072</td></tr></table>	D	G 1/8	G 1/4	G 3/8	Nr.	290.1070	290.1071	290.1072																
D	G 1/8	G 1/4	G 3/8																						
Nr.	290.1070	290.1071	290.1072																						
	Schlauch Erhältlich pro Meter / Hose Available by the meter / Tuyau Disponible au mètre / Tubo Disponibile por metro / Tubo Disponibile al metro <table><tr><td>L</td><td>per meter</td><td>ø 8/6mm</td></tr><tr><td>Nr.</td><td>290.2000/...m</td><td></td></tr></table>	L	per meter	ø 8/6mm	Nr.	290.2000/...m																			
L	per meter	ø 8/6mm																							
Nr.	290.2000/...m																								

	Schlauch für Temperaturen bis 260°C Erhältlich pro Meter Hose for temperatures up to 260°C Available by the meter Tuyau Disponible au mètre Manguera Disponible por metro Tubo Disponibile al metro <table><tr><td>L</td><td>per meter</td><td>ø 8/6mm</td></tr><tr><td>Nr.</td><td colspan="2">290.2002/...m</td></tr></table>	L	per meter	ø 8/6mm	Nr.	290.2002/...m			
L	per meter	ø 8/6mm							
Nr.	290.2002/...m								
	Schlauch für kleine Radien Erhältlich pro Meter Hose for small bend radius Available by the meter Tuyau pour petit rayon de courbre Disponible au mètre Manguera Disponible por metro Tubo Disponibile al metro <table><tr><td>L</td><td>per meter</td><td>ø 8/6mm</td></tr><tr><td>Nr.</td><td colspan="2">290.2004/...m</td></tr></table>	L	per meter	ø 8/6mm	Nr.	290.2004/...m			
L	per meter	ø 8/6mm							
Nr.	290.2004/...m								
	Halteschelle für simalube/Pinsel Kunststoff Clamp for simalube/round brush Plastic Bride de fixation pour simalube/pinceau Plastique Abrazadera para simalube/escobilla cilíndrica Plástico Fascetta di fissaggio per simalube/spazzola cilindrica Plastica <table><tr><td>D</td><td>50</td><td>28</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.2010</td><td>290.2013</td><td></td></tr></table>	D	50	28	[mm]	Nr.	290.2010	290.2013	
D	50	28	[mm]						
Nr.	290.2010	290.2013							
	Adapter für Perma-Schelle Kunststoff Adapter for Perma clamp Plastic Adaptateur de fixation Perma Plastique Adaptador para abrazadera Perma Plástico Adattatore per fascetta Perma Plastica <table><tr><td>D</td><td>50</td><td>[mm]</td></tr><tr><td>Nr.</td><td colspan="2">290.2012</td></tr></table>	D	50	[mm]	Nr.	290.2012			
D	50	[mm]							
Nr.	290.2012								
	Distanzhalter zu Halteschelle für Pinsel 290.2013 Distance holder to clamp for round brush 290.2013 Entretoise pour bride de fixation pour pinceau 290.2013 Espaciador para abrazadera p. escobilla cilíndrica 290.2013 Distanziatore per fascetta per spazzola cilindrica 290.2013 <table><tr><td>H</td><td>15</td><td>[mm]</td></tr><tr><td>Nr.</td><td colspan="2">290.2014</td></tr></table>	H	15	[mm]	Nr.	290.2014			
H	15	[mm]							
Nr.	290.2014								
	Rückschlagventil / Non-return valve / Clapet antiretour / Válvula de retención / Valvola di non ritorno <table><tr><td>D</td><td>G 1/8</td><td>G 1/4</td></tr><tr><td>Nr.</td><td>290.2020</td><td>290.2021</td></tr></table>	D	G 1/8	G 1/4	Nr.	290.2020	290.2021		
D	G 1/8	G 1/4							
Nr.	290.2020	290.2021							
	Pinsel / Round brush / Pinceau / Pincel / Spazzola cilindrica <table><tr><td>DxL</td><td>ø 25x45</td><td>[mm]</td></tr><tr><td>Nr.</td><td colspan="2">290.2034</td></tr></table>	DxL	ø 25x45	[mm]	Nr.	290.2034			
DxL	ø 25x45	[mm]							
Nr.	290.2034								

	Pinzel kurz / round brush short / Pinceau court / Pincel / Spazzola cilindrica <table><tr><td>DxL</td><td>ø 25x15</td><td>[mm]</td></tr><tr><td>Nr.</td><td>2041</td><td></td></tr></table>	DxL	ø 25x15	[mm]	Nr.	2041							
DxL	ø 25x15	[mm]											
Nr.	2041												
	Bürste / Brush / Broses Cepillo / Spazzola rettangolare <table><tr><td>L</td><td>40</td><td>70</td><td>100</td><td>25</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.2035</td><td>290.2036</td><td>290.2037</td><td>290.2038</td><td></td></tr></table>	L	40	70	100	25	[mm]	Nr.	290.2035	290.2036	290.2037	290.2038	
L	40	70	100	25	[mm]								
Nr.	290.2035	290.2036	290.2037	290.2038									
	Bürste für die Lebensmittelindustrie Brush for food applications Brosses pour des applications alimentaire Cepillo alimentición Spazzola rettangolare alimentare <table><tr><td>L</td><td>40</td><td>70</td><td>100</td><td>25</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.2035-FN</td><td>290.2036-FN</td><td>290.2037-FN</td><td>290.2038-FN</td><td></td></tr></table>	L	40	70	100	25	[mm]	Nr.	290.2035-FN	290.2036-FN	290.2037-FN	290.2038-FN	
L	40	70	100	25	[mm]								
Nr.	290.2035-FN	290.2036-FN	290.2037-FN	290.2038-FN									
	Bürste Anschluss seitlich Brush, lateral connection Brosses à connexion latérale Cepillo, conexión lateral Spazzola rettangolare, attacco laterale <table><tr><td>L</td><td>40</td><td>70</td><td>100</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.2035-S</td><td>290.2036-S</td><td>290.2037-S</td><td></td></tr></table>	L	40	70	100	[mm]	Nr.	290.2035-S	290.2036-S	290.2037-S			
L	40	70	100	[mm]									
Nr.	290.2035-S	290.2036-S	290.2037-S										
	Bürste Anschluss seitlich, für die Lebensmittelindustrie Brush, lateral connection, for food applications Brosses à connexion latérale, pour applications alimentaire Cepillo, conexión lateral alimentación Spazzola rettangolare, attacco laterale alimentare <table><tr><td>L</td><td>40</td><td>70</td><td>100</td><td>[mm]</td></tr><tr><td>Nr.</td><td>290.2035-SFN</td><td>290.2036-SFN</td><td>290.2037-SFN</td><td></td></tr></table>	L	40	70	100	[mm]	Nr.	290.2035-SFN	290.2036-SFN	290.2037-SFN			
L	40	70	100	[mm]									
Nr.	290.2035-SFN	290.2036-SFN	290.2037-SFN										
	Aufzugsbürste 5-16mm, Höhe 32 mm Elevator brush 5-16mm, height 32 mm Brosse pour ascenseurs 5-16mm, hauteur 32 mm Escobilla para ascensores 5-16mm, altura 32 mm Spazzola per guida ascensori 5-16mm, alta 32 mm <table><tr><td>Nr.</td><td>290.2039</td></tr></table>	Nr.	290.2039										
Nr.	290.2039												
	Aufzugsbürste 16-32mm, Höhe 32 mm Elevator brush 16-32mm, height 32 mm Brosse pour ascenseurs 16-32mm, hauteur 32 mm Escobilla para ascensores 16-32mm, altura 32 mm Spazzola per guida ascensori 16-32mm, alta 32 mm <table><tr><td>Nr.</td><td>290.2044</td></tr></table>	Nr.	290.2044										
Nr.	290.2044												

	Aufzugsbürste klein 5-16mm, Höhe 32 mm Elevator brush small 5-16mm, height 32 mm Petite brosse pour ascenseurs 5-16mm, hauteur 32 mm Escobilla pequeña para ascensores 5-16mm, altura 32 mm Spazzola piccola per guida ascensori 5-16mm, alta 32 mm <table><tr><td>Nr.</td><td>290.2042</td></tr></table>	Nr.	290.2042													
Nr.	290.2042															
	Montagesupport für alle simalube Größen Mounting support for all simalube sizes Support de montage pour toutes les tailles de simalube Soporte de montaje para todos los tamaños de simalube Supporto di montaggio per simalube di ogni dimensione <table><tr><td>D</td><td>R 1/4</td></tr><tr><td>Nr.</td><td>290.2080</td></tr></table>	D	R 1/4	Nr.	290.2080											
D	R 1/4															
Nr.	290.2080															
	Schutzhaube zu Montagesupport 2080 Protective cover to mounting support 2080 Capot de protection pour support de montage 2080 Cubierta protectora para soporte de montaje 2080 Calotta protezione per supporto mont. 2080 <table><tr><td></td><td>≤125ml</td><td>250ml</td><td></td></tr><tr><td>L</td><td>105</td><td>195</td><td>mm</td></tr><tr><td>Nr.</td><td>290.2081</td><td>290.2085</td><td></td></tr></table>		≤125ml	250ml		L	105	195	mm	Nr.	290.2081	290.2085				
	≤125ml	250ml														
L	105	195	mm													
Nr.	290.2081	290.2085														
	Befestigungswinkel zu Montagesupport simalube Bracket to mounting support Equerre de fixation pour support de montage Soporte de montaje Staffa di sostegno <table><tr><td></td><td>1x</td><td>3x</td><td>5x</td><td></td></tr><tr><td>L</td><td>75</td><td>240</td><td>390</td><td>mm</td></tr><tr><td>Nr.</td><td>290.2082</td><td>290.2083</td><td>290.2084</td><td></td></tr></table>		1x	3x	5x		L	75	240	390	mm	Nr.	290.2082	290.2083	290.2084	
	1x	3x	5x													
L	75	240	390	mm												
Nr.	290.2082	290.2083	290.2084													
	Support, universell verstellbar Bracket, universally adjustable Support, réglage universel Soporte, universal regulable Staffa con regolazione universale <table><tr><td>Nr.</td><td>290.2800</td></tr></table>	Nr.	290.2800													
Nr.	290.2800															
	Schmiernippel Zum Durchschmieren und Füllen der Fettkanäle Connector nipple For cleaning and filling of grease lines Graisseur Pour nettoyer et remplir les canaux de graissage Niple de conexión Para limpiar y llenar las tuberías de lubricación Nipplo di connessione Per ingrassare e riempire i condotti di ingrassaggio <table><tr><td>D</td><td>R 1/4</td></tr><tr><td>Nr.</td><td>290.3011</td></tr></table>	D	R 1/4	Nr.	290.3011											
D	R 1/4															
Nr.	290.3011															

	Nachfüllnippel Zum Nachfüllen des simalube Refill nipple For refilling of simalube Graisseur de recharge Pour la recharge du simalube Niple de recarga Para la recarga del simalube Niplo di ricarica Per la ricarica del simalube <table><tr><td>D</td><td>G 1/4</td></tr></table> Nr. 290.3012	D	G 1/4		
D	G 1/4				
	Nachfüllnippel Zum Befüllen des simalube mit Fettpressenfüller Refill nipple To grease gun filler for filling simalube Graisseur de recharge Pour appareil de remplissage de pompes à graisse Niple de recarga Para llenado de simalubes Niplo di ricarica Per riempire il simalube con un caricatore per pompa a grasso <table><tr><td>D</td><td>R 1/4</td><td>R 3/8</td></tr></table> Nr. 290.3013 290.3014	D	R 1/4	R 3/8	
D	R 1/4	R 3/8			
	4-fach-Adapter 4-fold adapter Adaptateur quadruple Adaptador cuádruple Adattatore quadruplo <table><tr><td>D</td><td>G 1/2</td><td>G 1/4</td></tr></table> Nr. 290.4100 290.4101	D	G 1/2	G 1/4	
D	G 1/2	G 1/4			
	2-fach-Adapter 2-fold adapter Adaptateur double Adaptador doble Adattatore doppio <table><tr><td>D</td><td>G 1/2</td><td>G 1/4</td></tr></table> Nr. 290.4102 290.4103	D	G 1/2	G 1/4	
D	G 1/2	G 1/4			
	Antriebskopf Zur Wiederbefüllung Gas generator For refilling Tête de commande Pour la recharge Celda generadora de gas Para recarga Testa di comando Per ricarica <table><tr><td></td><td>30 ml</td><td>60 ml</td><td>125 ml</td></tr></table> Nr. 220.5004 220.5006 220.5008		30 ml	60 ml	125 ml
	30 ml	60 ml	125 ml		
	Antriebskopf Zur Wiederbefüllung Gas generator For refilling Tête de commande Pour la recharge Celda generadora de gas Para recarga Testa di comando Per ricarica <table><tr><td></td><td>250 ml</td></tr></table> Nr. 220.5010		250 ml		
	250 ml				

	Verschlussstopfen Kunststoff Closing nipple Plastic Bouchon de fermeture Plastique Tapón de cierre Plástico Tappino di chiusura Plastica Nr. 290.5050																								
	Rückschlagventilstopfen Kunststoff Non-return valve plug Plastic Bouchon antiretour Plastique Tapón de válvula de antiretorno Plástico Tappo valvola di non ritorno Plastica Nr. 290.5060																								
	Dichtungsring / Gasket ring / Joint d'étanchéité / Arandela (golilla) Rondella Nr. 290.5080																								
	Fettkartusche / Grease Cartridge / Cartouche de graisse / Cartucho de grasa / Cartuccia di grasso <table><tr><td></td><td>SL01</td><td>SL02</td><td>SL04</td><td>SL06</td><td>SL09</td></tr><tr><td>Nr.</td><td>290.7001</td><td>290.7002</td><td>290.7004</td><td>290.7006</td><td>290.7009</td></tr><tr><td></td><td>SL10</td><td>SL24</td><td>SL25</td><td>SL26</td><td></td></tr><tr><td>Nr.</td><td>290.7010</td><td>290.7024</td><td>290.7025</td><td>290.7026</td><td></td></tr></table>		SL01	SL02	SL04	SL06	SL09	Nr.	290.7001	290.7002	290.7004	290.7006	290.7009		SL10	SL24	SL25	SL26		Nr.	290.7010	290.7024	290.7025	290.7026	
	SL01	SL02	SL04	SL06	SL09																				
Nr.	290.7001	290.7002	290.7004	290.7006	290.7009																				
	SL10	SL24	SL25	SL26																					
Nr.	290.7010	290.7024	290.7025	290.7026																					
	Ölflasche 0.5 l / Oil bottle 0.5 l / Bouteille d'huile 0.5 l / Botella de aceite 0.5 l / Bottiglia di olio 0.5 l <table><tr><td></td><td>SL14</td><td>SL15</td><td>SL16</td><td>SL18</td><td>SL19</td></tr><tr><td>Nr.</td><td>290.7114</td><td>290.7115</td><td>290.7116</td><td>290.7118</td><td>290.7119</td></tr></table>		SL14	SL15	SL16	SL18	SL19	Nr.	290.7114	290.7115	290.7116	290.7118	290.7119												
	SL14	SL15	SL16	SL18	SL19																				
Nr.	290.7114	290.7115	290.7116	290.7118	290.7119																				